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## WHAT IS CLAIMED IS:

- 1. A method for reducing visual artifacts in reconstructed images, the method comprising:
  - a) determining edge energy for each pixel in the image;
  - b) comparing the edge energy for each pixel to a threshold, producing an edge map;
  - c) using a distance transform to produce a filter map:
  - d) applying a filter to each pixel in the image, wherein the filter applied is dependent upon a filter map value for each pixel; and
  - e) producing an output value for each pixel in the image.
- 2. The method of claim 1, wherein the edge energy is determined using a Sobel filter.
- 3. The method of claim 1, wherein the edge energy is determined used a Prewitt filter.
  - 4. The method of claim 1, wherein the edge energy is determined using a derivative of Guassian filter.
  - 5. The method of claim 1, wherein the edge energy is determined using a normal filter.
  - 6. The method of claim 1, wherein pixels with an edge energy above the threshold are labeled as edge pixels and the corresponding value set to 1 in the edge map.
  - 7. The method of claim 1, wherein the threshold is selected to be the minimum of a user-defined maximum threshold and half of the maximum edge energy within a current image block.
  - 8. The method of claim 7 wherein the user-defined maximum threshold is 184.
  - 9. The method of claim 1, wherein boundary pixels in the edge map are set as edge pixels.
  - 10. The method of claim 7, wherein the steps of using a distance transform, applying a filter to each pixel in the image, and producing an output value for each pixel in the image of are not performed if the threshold is less than a predefined minimum value.
  - 11. The method of claim 1, wherein the distance transform is the minimum value of a user-defined maximum distance and a distance of a current pixel to a nearest edge in the edge map.
  - 12. The method of claim 1, wherein edge pixels in the edge map are given a filter map value of zero.
  - 13. The method of claim 11, wherein the user-defined maximum distance is 3.
- 14. The method of claim 1, wherein the filter further comprises a two-dimensional low pass filter.
  - 15. The method of claim 1, wherein the filter further comprises two one-dimensional low pass filters.

8371-122

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- 16. The method of claim 1, wherein the filter map further comprises separate filter maps, one for horizontal operators and one for vertical operators.
- 17. The method of claim 1, wherein the reconstructed image is in RGB color space.
- 18. The method of claim 1, wherein the reconstructed image is in LAB color space.
- 5 19. The method of claim 1, wherein the filter size is 2F+1.
  - 20. The method of claim 1, wherein the filter size is 2F-1.
  - 21. A facsimile machine, comprising:
    - a) a receiver operable to receive an input image;
    - b) a processor operable to decompress the input image, producing a decompressed image;
    - c) a postprocessor operable to:
      - i) determine edge energy for each pixel in the image;
      - ii) compare the edge energy for each pixel to a threshold, producing an edge map;
      - iii) use a distance transform to produce a filter map;
      - iv) apply a filter to each pixel in the image, wherein the filter applied is dependent upon a filter map value for each pixel; and
      - v) produce an output value for each pixel in the image; and
    - d) a print engine operable to print the decompressed and adaptively filtered image.
  - 22. The method of claim 21, wherein the input image is a color image.
  - 23. The method of claim 21, wherein the processor and the postprocessor are the same processor performing different sets of instructions.
  - 24. An article including instructions that, when executed, result in:
    - a) determination of edge energy for each pixel in the image;
    - b) comparison of the edge energy for each pixel to a threshold, producing an edge map;
    - c) use of a distance transform to produce a filter map;
    - d) application of a filter to each pixel in the image, wherein the filter applied is dependent upon a filter map value for each pixel; and
    - e) production of an output value for each pixel in the image.

8371-122